

REMARKS

Claims 13-24 are pending in the application. Applicants thank the Examiner for the withdrawal of the Objection to the Specification and the withdrawal of the rejections of claims 13-24 under 35 U.S.C. § 112, second paragraph, as being indefinite in view of the April 15, 2010 Amendment.

The Claimed Invention

The present invention discloses a method for operating a dishwasher that includes a wash program having partial program steps pre-wash (1), clean (2), intermediate rinse (3), clear rinse (4) and dry (5). In the method of the present invention, the pressure at which the washing liquid is conveyed from the circulating pump to the at least one spray device is varied in order to remove food residues in small quantities in accordance with a predetermined hydraulic abrasion capacity. This variation of pressure can be done by varying at least one of spray pressure and spray quantity. By varying the pressure or quantity at a predetermined hydraulic abrasion capacity, food residues can be carried away from the dishwasher in a manner such that the dishwasher filter remains functional (i.e., does not clog) during the wash program.

This is an advantage over related art dishwashing methods where water jets act on the items to be washed using spray that is relatively strong and not varied, and thus food residues are released relatively rapidly during the pre-wash phase. Accordingly, there is a risk in the related art methods that the filter systems provided in the dishwasher become clogged with washing residues, which impedes the water circulation in the dishwasher.

This impediment may also result in back-contamination of the items to be washed as a result of size reduction and fine distribution of the washing residues deposited at the filter systems, thereby reducing the cleaning effect of the dishwasher.

The Rejections under 35 U.S.C. § 103(a)

Claims 13-15, 18-19, and 22-24 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Wyman (GB-2221384) in view of Eiermann et al. (U.S. Patent Publication No. 2002/0108639). Applicants respectfully traverse this rejection.

In the April 15, 2010 Amendment, Applicants noted that independent claim 13 recites a feature whereby the method comprises “varying a pressure at which the washing liquid is conveyed from the circulating pump to the at least one spray device in order to remove food residues in small quantities by a pre-determined hydraulic abrasion capacity . . . thus ensuring that a filter remains functional in a remainder of the wash program.” The grounds of rejection allege that this feature is disclosed by Wyman. In particular, the grounds of rejection cite page 4, line 2 to page 5, line 34 of Wyman as disclosing a method of controlling the sequence of operation of all the elements of the dishwasher and means for periodically varying the strength of the jets. The grounds of rejection acknowledge that Wyman fails to disclose the claimed feature, more specifically recited in claim 15, of an intermediate rinse cycle, where the circulating pump is operated at about 30% to 60% of maximum capacity, in a second part section of the pre-wash process

it is operated at about 50% to 100% of maximum capacity and in a third part section of the prewash process it is operated at about 30% to 60% of maximum capacity.

Applicants again respectfully submit that the variation of the pump 15 in the Wyman dishwasher is varied for the purpose of controlling the level of acoustic noise during a wash process (see Wyman at page 1, line 15 – page 2, line 8) and not for the purpose of preventing the clogging of a filter. As such, in the Wyman dishwasher, the pump 15 starts at its lower speed of 2,000 rpm or 2,100 rpm, causing jets of cold water to soak into the layers of food waste on the surfaces of the articles stacked within the dishwasher in order to soften them. The water is recirculated as it collects in the sump 22, and this process continues for at least 4 minutes. The Wyman dishwasher timer 21 then causes the pump motor 151 to be switched to the higher voltage level, to rotate at the higher speed of 2,700 rpm for a substantially shorter period, for example, 2 minutes (see Wyman at page 4, lines 15-26). As such, Wyman *teaches away* from the current invention in that the two-stage process of a very low-pressure to soak the dishes followed by high pressure to rinse the dishes would still cause the food particles (residues) to clog the filter as prevented by the predetermined hydraulic abrasion capacity feature of the present invention.

In response to these arguments, at page 6 of the present Office Action, the grounds of rejection state that the above argument “is not persuasive” and that “the claimed process only recites a step of varying a pressure which is performed by the Wyman disclosed process.” Applicants respectfully traverse this statement noting that the grounds of rejection summarily dismiss other combined features in the recitation of

the claim such as varying pressure in such a manner based on a *pre-determined hydraulic abrasion capacity*. Hydraulic abrasion capacity as taught in the present specification at paragraph [007] relates to pressure and quantity which is not disclosed or suggested by Wyman or Eirmann et al. as further discussed below.

Accordingly, Applicants respectfully submit that Wyman does not disclose or suggest a predetermined hydraulic abrasion capacity nor does it ensure that its filter remains functional in a remainder of the wash program as recited in independent claim 13.

Applicants note that Eiermann et al. is cited in the grounds of rejection as disclosing a method and apparatus for operating a dishwasher having a conventional complete dishwashing program that runs in partial steps. It too fails to disclose the predetermined hydraulic abrasion capacity feature of the present invention. While the grounds of rejection allege that it would have been obvious at the time Applicants invented the claimed process to incorporate the intermediate rinse cycle as disclosed by Eiermann et al. into the process and apparatus of Wyman for the purpose of increasing the rinsing effect for removal of the detergent solution from the objects, Applicants respectfully submit that this would not disclose or suggest using a predetermined hydraulic abrasion capacity feature as in the present invention to ensure a filter remains functional in a remainder of the wash program. Indeed, as discussed above, the Wyman method with its pre-soak and then higher pressure rinse would lead to clogging of the filter as in the related art.

The grounds of rejection in this Office Action further state that the aforementioned argument is unpersuasive because the claimed process does not include

any different steps which provide a predetermined hydraulic abrasion capacity and ensure that its filter remains functional, and that Applicants have not shown that the Wyman process does not perform these steps. Applicants respectfully submit that neither Wyman or Eirmann et al. disclose or suggest the feature for the reasons above, and that the Examiner bears the initial burden of factually supporting any prima facie conclusion of obviousness. In this case, Applicants respectfully submit that the burden has not been met. Accordingly, Applicants submit that independent claim 13 is allowable (as well as independent claim 24 including similar features), along with dependent claims 14-23 that depend from claim 13.

Further, Wyman does not suggest how the rpm's therein relate to operating the pump in specific speeds with respect to the capacity of the pump at about 30% to 60% of maximum capacity, 50% to 100% of maximum capacity and at about 30% to 60% of maximum capacity. A maximum capacity of the pump in Wyman is not disclosed; only that it is operated at lower rpm's to reduce the noise level during a wash. This allowable feature is disclosed in dependent claims 15 and 19.

Claim 16 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Wyman in view of Eiermann et al., and further in view of Edwards et al. (U.S. Patent No. 5,849,101). Claim 17 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Wyman in view of Eiermann et al., and further in view of DE-2441361. Claim 20 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Wyman in view of Eiermann et al., and further in view of Sakata (U.S. Patent No. 5,355,900). Claim 21 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Wyman in view of

Eiermann et al., and further in view of Edwards et al. and Sakata. Claims 16, 17, 20, and 21 are allowable at least based on their dependence on claim 13.

CONCLUSION

In view of the above, allowance of claims 13-24 are respectfully requested. If the Examiner has any questions regarding the remarks herein, the Examiner is kindly requested to contact the undersigned. If an extension of time for this paper is required, petition for extension is herewith made.

Respectfully submitted,

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